MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022/2022

BKC3034 – BUSINESS SYSTEMS ANAYSIS AND DESIGN

(All sections/Groups)

22 NOVEMBER 2022
9.00 a.m – 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 4 pages.
2. Attempt **ALL** questions. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

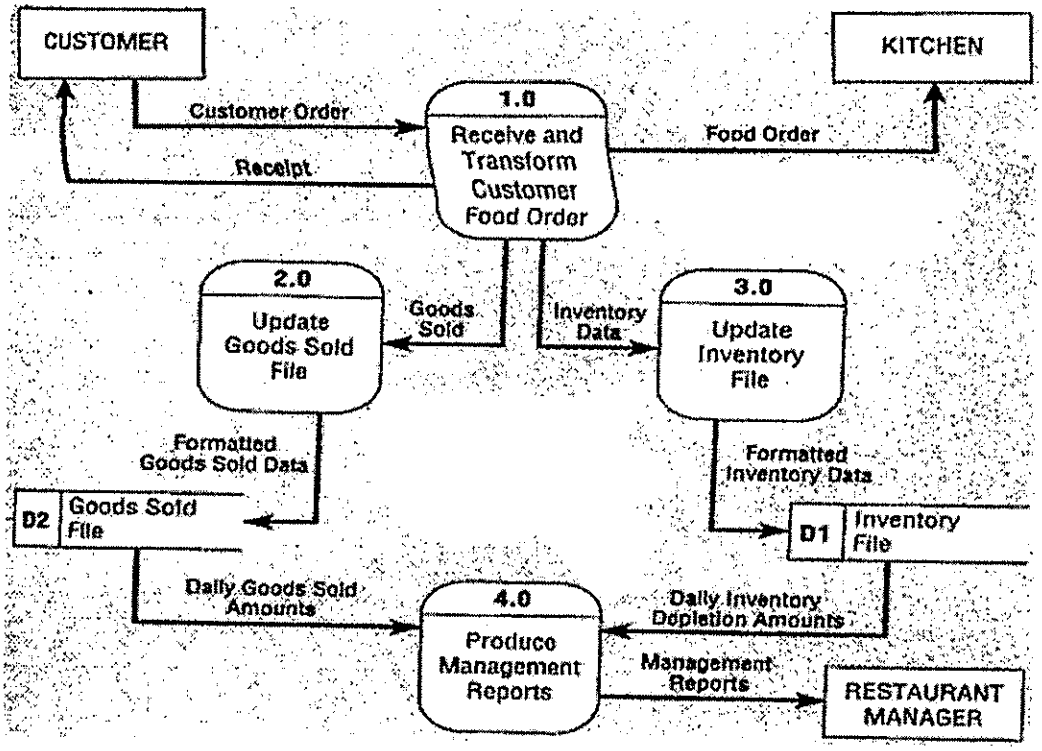
(a) Assume a proposed system has a high technical risk and complex requirements. As a project manager, which system development life cycle (SDLC) approach would you propose for the development of the proposed system? Discuss on your proposed approach and justify your choice of approach.

(8 marks)

(b) One of the activities under the SDLC Core Process 2 is to schedule the work. Briefly describe the main tasks to be done in this activity.

(8 marks)

(c) Given the data flow diagram shown below for Food Ordering System, develop a **structure chart** using *transaction analysis*.



(6 marks)

(Total: 22 marks)

Continued ...

QUESTION 2

(a) Assume that your company has decided to hire vendor XYZ to develop your new system. You are tasked to develop a contract between your company and vendor XYZ. Briefly describe **THREE (3)** types of contracts and select the contract that would benefit **BOTH** your company and vendor XYZ.

(10 marks)

(b) Two alternatives to hosting for Internet deployment are virtual servers and cloud computing. How do *virtual servers* and *cloud computing* differ?

(4 marks)

(c) Discuss the usage of project backlog in a Scrum project.

(6 marks)

(Total: 20 marks)

QUESTION 3

(a) Describe, with **ONE (1)** example each, the concepts of *affordance* and *visibility* in the user interface design guidelines.

(8 marks)

(b) One integrity control that can be designed is the *complex update control*. What is the purpose of this control? If an update is executed in the program, what measure should this control take?

(4 marks)

(c) Explain what a *performance test* is. What are the **TWO (2)** criteria tested under this test?

(8 marks)

(Total: 20 marks)

Continued ...

QUESTION 4

(a) Read the narrative below of a food ordering process:

Pizza Plaza wants to install a system to record orders for pizza and cinnamon buns. When regular customers call Pizza Plaza on the phone, their phone number goes automatically into the Pizza Plaza's system. The phone number invokes the name, address, and last order date from the Customer Master File and comes automatically up on the screen. Once the order is taken, the order is given to the cook. The sales are recorded in the Sales File. The order total, including the tax and delivery is calculated from here. The receipt is printed in two copies. Drivers who make deliveries give customers a copy of the receipt while the order copy is stored in the Receipt File. At the end of each week, a weekly report is generated for management and a copy of the report is kept in the Sales Total File.

Develop a **context diagram** and a **logical level-0 data flow diagram** for the above process.

(18 marks)

(b) Read the narrative below for bike return process workflow:

The customer is responsible for returning the bike to the shop. The receptionist inputs the customer's name, and the computer carries out the activities of finding the hire details. Once the details are found, the computer checks the return date. If it is overdue, extra charges are calculated. At the same time, the mechanic is responsible for checking the bike for damage and calculating the cost of any damage discovered. Once this is done, the computer calculates the remaining deposit, and the receptionist returns the remaining deposit.

Develop an **activity diagram** for the workflow described above.

(10 marks)

Continued ...

(c) Based on the scenario given below for the Order System of BeliJe Sdn. Bhd., illustrate a use case diagram for the system for all actors.

BeliJe Sdn. Bhd. is a local online retail store. A customer that wishes to purchase from them will place his/her order through the Order System. However, the customer would need to create an account if he/she does not have one. The customer would need to login into the system before an order can be made. The order will be viewed by the Order Processing Unit, which includes the login page. For payment purposes, a customer has a choice of making payment via credit card or deducting his/her points from the account. If a customer pays by credit card, the card details will be validated by the credit card service provider such as AEON Credit, CIMB, Maybank, Public Bank, UOB, etc. Should the customer choose to pay by points, BeliJe's credit department will follow-up with the next course of action.

(10 marks)

(Total: 38 marks)

End of Paper